

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (***Currently Amended***) An electronic camera, comprising:
 - an electronic image capture device adapted for capturing an image scene;
 - a scanning aperture shutter located to control light energy received by said electronic image capture device from said image scene;
 - a photocell adapted for sensing light energy received from said image scene; and
 - an exposure control system responsive to said photocell and operatively connected to said scanning aperture shutter,wherein said exposure control system is adapted to control said scanning aperture shutter and a flash unit in response to sensed light energy at said photocell to control ~~an~~ a variable amount of fill flash energy received by said electronic image capture system in relation to ambient light energy received by said electronic image capture system during image capture.
2. (***Original***) The camera of claim 1, wherein said exposure control system is adapted to illuminate said flash unit once a predetermined amount of ambient light energy is sensed by said photocell.
3. (***Original***) The camera of claim 2, wherein said exposure control system is adapted to extinguish said flash unit once a predetermined amount of infrared spectrum energy is sensed by said photocell during flash unit illumination.
4. (***Original***) The camera of claim 1, wherein said photocell includes a visible spectrum photocell and an infrared spectrum photocell, and further wherein, said exposure control system is adapted to use said visible spectrum photocell to sense ambient light energy received from said image scene prior to illumination by said flash unit and to use said infrared photocell for sensing infrared spectrum energy received from said image scene during illumination by said flash unit.
5. (***Original***) The camera of claim 4, wherein said scanning aperture shutter includes separate apertures for said image capture device, said visible spectrum photocell and said infrared spectrum photocell.

6. (*Original*) The camera of claim 1, wherein said exposure control system is adapted to generate control signals for a detachable flash unit.
7. (*Original*) The camera of claim 1, wherein said flash unit is constructed integrally with said camera.
8. (*Currently Amended*) An electronic camera, comprising:
 - an electronic image capture device adapted for capturing an image scene;
 - a scanning aperture shutter located to control light energy received by said image capture device;
 - a flash unit oriented to illuminate said image scene;
 - a photocell unit adapted for sensing visible spectrum energy and infrared spectrum energy received from said image scene; and
 - an exposure control system responsive to said photocell unit and operatively connected to said scanning aperture shutter and said flash unit,wherein said exposure control system is adapted to control an amount of fill flash energy received from said image scene in relation to visible ambient light energy received from said image scene during image capture by illuminating said flash unit a variable amount once a predetermined amount of ambient visible spectrum energy is sensed by said photocell unit and by extinguishing said flash unit once a predetermined amount of infrared energy is sensed by said photocell unit.
9. (*Original*) The camera of claim 8, wherein said visible spectrum and infrared spectrum photocells are separate devices.
10. (*Original*) The camera of claim 9, wherein said shutter includes separate, proportionately operable, variable apertures for said image capture device and said photocell unit.
11. (*Currently Amended*) The camera ~~of claim 11~~ of claim 8, wherein said flash unit is a quenchable strobe light.
12. (*Currently Amended*) A method for electronic image capture using a fill flash function, comprising the steps of:

using a scanning aperture shutter to control light energy received by an electronic image capture device;
sensing visible ambient light energy and infrared energy received from an image scene;
and
controlling said scanning aperture shutter and a flash unit during image capture in response to said sensing to cause a predetermined ratio of fill flash light energy to ambient light energy to be received by said electronic image capture device including illuminating said flash unit a variable amount once a predetermined amount of ambient light energy is sensed during image capture.

13. (*Original*) The method of claim 12, wherein said step of sensing uses an infrared spectrum photocell for sensing infrared energy received from said image scene during illumination by said flash unit.
14. (*Original*) The method of claim 13, wherein said step of sensing uses a visible light spectrum photocell for sensing ambient light energy received from said image scene before illumination by said flash unit.
15. (*Original*) The method of claim 12, wherein said scanning aperture shutter includes separate, proportionately operable, variable apertures for image capture and said step of sensing.
16. (*Original*) The method of claim 12, wherein said step of controlling includes extinguishing said flash unit once a predetermined amount of infrared spectrum energy is sensed during flash unit illumination.
17. (*New*) An electronic camera, comprising:
an electronic image capturing means adapted for capturing an image scene;
a light control means;
wherein said light control means is located to control light energy received by said
electronic image capturing means from said image scene;
a light sensing means adapted for sensing light energy received from said image scene;
and

an exposure control means responsive to said light sensing means and operatively connected to said light control means including a scanning means, wherein said exposure control means is adapted to control said light control means and a means for discharging a flash of light in response to sensed light energy at said light control means to control a variable amount of fill flash energy received by said electronic image capturing means in relation to ambient light energy received by said electronic image capturing means during image capture.

18. (New) The camera of claim 17, wherein said exposure control system adapted to illuminate said flash unit once a predetermined amount of ambient light energy is sensed by said light control means.
19. (New) The camera of claim 18, wherein said exposure control system is adapted to extinguish said flash unit once a predetermined amount of infrared spectrum energy is sensed by said light sensing means during flash unit illumination.
20. (New) The camera of claim 17, wherein said light sensing means includes visible spectrum light sensing means and an infrared spectrum light sensing means, and further wherein, said exposure control system is adapted to use said visible spectrum light sensing means to sense ambient light energy received from said image scene prior to illumination by said flash unit and to use said infrared light sensing means for sensing infrared spectrum energy received from said image scene during illumination by said flash unit.
21. (New) The camera of claim 20, wherein said light control means includes separate apertures for said image capturing means, said visible spectrum light sensing means and said infrared spectrum light sensing means
22. (New) The camera of claim 17, wherein said exposure control system is adapted for sensing light energy is adapted to generate control signals for a detachable flash unit.
23. (New) The camera of claim 17, wherein said flash unit is constructed integrally with said camera.
24. (New) An electronic camera, comprising:

an electronic image capturing means adapted for capturing an image scene;
a light control means located to control light energy received by said means adapted for capturing an image scene;
a means for discharging a flash of light oriented to illuminate said image scene;
a light sensing means adapted for sensing visible spectrum energy and infrared spectrum energy received from said image scene; and
an exposure control means responsive to said light sensing means and operatively connected to said light control means and said flash unit,
wherein said exposure control means is adapted to control an amount of fill flash energy received from said image scene in relation to visible ambient light energy received from said image scene during image capture by illuminating said flash unit a variable amount once a predetermined amount of ambient visible spectrum energy is sensed by said light sensing means and by extinguishing said flash unit once a predetermined amount of infrared energy is sensed by said light sensing means.

25. *(New)* The camera of claim 24, wherein said visible spectrum and infrared spectrum light sensing means are separate devices.
26. *(New)* The camera of claim 25, wherein said light control means includes separate, proportionately operable, variable apertures for said image capturing means and said light sensing means
27. *(New)* The camera of claim 24, wherein said flash unit is a quenchable strobe light.
28. *(New)* A method for electronic image capture using a fill flash function, comprising the steps of:
using a light control means to control light energy received by an electronic image capture means;
sensing visible ambient light energy and infrared energy received from an image scene;
and
controlling said light control means and a means for discharging a flash of light during image capture in response to said sensing to cause a predetermined ratio of fill flash light energy to ambient light energy to be received by said electronic image capture means

including illuminating said means for discharging a flash of light a variable amount once a predetermined amount of ambient light energy is sensed during image capture.

29. (New) An electronic image capture device adapted for capturing an image scene, comprising:

a light control means to control light energy received by said electronic image capture device from said image scene;

a means for discharging a flash of light oriented to illuminate said image scene;

a light sensor adapted for sensing light energy received from said image scene; and

an exposure control system responsive to said light sensor and operatively connected to said light control means,

wherein said exposure control system is adapted to control said light control means and a flash unit in response to sensed light energy at said light control means to control a variable amount of fill flash energy received by said electronic image capture system in relation to ambient light energy received by said electronic image capture system during image capture.

30. (New) An electronic image capture device adapted for capturing an image scene, comprising:

a light control means located to control light energy received by said image capture device;

a flash unit oriented to illuminate said image scene;

a light sensor unit adapted for sensing visible spectrum energy and infrared spectrum energy received from said image scene; and

an exposure control system responsive to said light sensor unit and operatively connected to said light control means and said flash unit,

wherein said exposure control system is adapted to control an amount of fill flash energy received from said image scene in relation to visible ambient light energy received from said image scene during image capture by illuminating said flash unit a variable amount once a predetermined amount of ambient visible spectrum energy is sensed by said light sensor unit and by extinguishing said flash unit once a predetermined amount of infrared energy is sensed by said light sensor unit.